

REMARKS

Claims 1-8 are pending in this application. By this Amendment, claims 1-6 and 8 are amended. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version With Markings To Show Changes Made." Amendments have been made to the claims for clarity, and for reasons unrelated to patentability.

The Office Action rejects claims 1-8 under 35 U.S.C. §103(a) over U.S. Patent 6,105,017 to Kleeweine et al. (hereafter Kleeweine). The rejection is respectfully traversed.

Pages 3 and 4 of the Office Action incorrectly references Nakano rather than Kleeweine. Applicants believe that this is merely a typographical error as each occurrence of Nakano should be replaced by Kleeweine.

Independent claim 1 recites a first process of enabling a database server operating at a server to store data, which is stored in a database requested by a program operating at a client, to a common storage device which is shared between the client and the server other than the storage device to which the database is stored, and to respond to the request by transmitting an identifying information which identifies the data stored on the common storage device to the program. Independent claim 1 further recites a second process of enabling the program to refer to the common storage device based on the identifying information, to obtain the stored data.

As discussed in the present application, only data to be processed (such as LOB data) may be stored in the common storage device. The common storage device is different from the storage device to which the database is stored. The identifying information that identifies the data stored on the common storage device is transmitted to the program.

In contrast, in Kleewein, an identifier for LOB data (which is stored in the database) is stored in the memory. The application program reads the identifier from the memory to access the LOB data from the database. More specifically, the identifier for the LOB data is stored in the memory 24 and the application program reads the identifier from the memory 24. See column 5, lines 65-66.

The Office Action agrees that Kleewein does not teach a common storage area. The Office Action asserts that Kleewein teaches a remote database. However, there is no suggestion of storing data to a common storage device as well as transmitting identifying information which identifies the data stored in the common storage device to the program. The Office Action never addresses these features but rather states that it would have been obvious to use a remote database to handle data request. This still does not suggest the claimed features especially relating to the common storage device.

As discussed in the present application, the database server may transmit the data (such as LOB data) from the database to the common storage device, and may transmit the identifying information (which identifies the data) to the program. Thereby, the program accesses the data using the identifying information without

accessing the database. Kleewein clearly differs from the present application. Kleewein stores the data (such as LOB data) in the database. This differs from the present application in which the data is stored in the common storage device.

More specifically, Kleewein does not teach or suggest to store data, which is stored in a database requested by a program operating at the client, to a common storage device which is shared between the client and the server other than the storage device to which the database is stored, and to respond to the request by transmitting an identifying information which identifies the data stored on the common storage device to the program. Kleewein also does not teach or suggest enabling the program to refer to the common storage device based on the identifying information, to obtain the stored data. Accordingly, independent claim 1 defines patentable subject matter.

Each of independent claims 6 and 8 also defines patentable subject matter for at least similar reasons as claim 1. Claims 2-5 depend from claim 1 and claim 7 depends from claim 6 and therefore also defines patentable subject matter for at least this reason. In addition, the dependent claims also recite features which further and independently distinguish over the applied prior art.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the above-identified application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-8 is respectfully requested.

Atty. Docket No. 500.37238CX1
Serial No.: 09/317,434

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (500.37238X00).

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, L.L.P.



David C. Oren
Registration No. 38,694

DCO/sjl

Phone: (703) 312-6600
Fax: (703) 312-6666

ANTONELLI, TERRY, STOUT & KRAUS L.L.P.
1300 NORTH SEVENTEENTH STREET, SUITE 1800
ARLINGTON, VA 22209

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Claims 1-6 and 8 have been amended as follows:

1. (Twice Amended) A database processing method used in a database system arranged in a client-server manner, comprising:

a first process of enabling a database server operating at a server to store data, which is stored in a database requested by a program operating at a client, to a common storage [area] device which is shared between said client and said server other than a storage [area] device to which said database is stored, and to respond to said request by transmitting an identifying information [of said stored data] which identifies said data stored on said common storage device to said program; and

a second process of enabling said program to refer to said common storage [area] device based on said identifying information, to obtain said stored data.

2. (Twice Amended) A database processing method as claimed in claim 1, further comprising:

a third process of enabling said database server to create a storage area identifying information for identifying the area on said common storage device to which said data is outputted;

a fourth process of notifying said program of said storage area identifying information from said database server; and

a fifth process of enabling said program to refer to the area on said common storage device using said storage area identifying information obtained by said notification to obtain said data.

3. (Twice Amended) A database processing method as claimed in claim 1, further comprising:

a sixth process of enabling said program to request an execution of a function defined in said database;

a seventh process of enabling said database server to execute said function according to [a] said execution request from said program;

[a] an eighth process of enabling said function to create a storage area identifying information of said common storage device to which said data is outputted;

a ninth process of enabling said function to output said data to said storage area; and

a tenth process of enabling said function to notify said database server of said storage area identifying information.

4. (Amended) A database processing method as claimed in claim 1, further comprising:

a process of enabling plural processes, which has a parallel database arrangement and executes a database process in parallel, to output said data to said common storage device in parallel.

5. (Twice Amended) A database processing method as claimed in claim 1, further comprising:

a process of enabling said program to refer to said common storage device to which said data is outputted by said database server, at the same node as a node where said database server is in operation to obtain said data.

6. (Three Times Amended) A database processing system used in a database system having a client-server arrangement for treating a massive amount of data, comprising:

first means for enabling a database server operating in a server to output to a file said massive amount of data stored in a database requested by a program

operating in a client, said file being at a common storage [area] device which is shared between said client and said server other than a storage [area] device at which said database is stored, and to respond to said request by transmitting identifying information [of] which identifies said file on said common storage device to said program; and

second means for enabling said program to refer to said file where said massive amount of data is outputted from said common storage [area] device by said first means and based on said identifying information, to obtain said massive amount of data.

8. (Three Times Amended) A computer-readable storage medium recorded a program and data in a database system arranged in a client-server manner, said program and data comprising:

a first procedure of enabling a database server operating in said server to output to a file a massive amount of data stored in a database requested by a program operating in a client, said file being at a common storage [area] device which is shared between said client and said server other than a storage [area] device at which said database is stored, and to respond to said request by transmitting identifying information [of] which identifies said file on said common storage device to said program; and

a second procedure of enabling said program to refer to said file to which said massive amount of data is outputted from said common storage [area] device by

Atty. Docket No. 500.37238CX1
Serial No.: 09/317,434

said first procedure and based on said identifying information, to obtain said massive amount of data.